16 September 2016 - Measurements of the extent of summer Arctic sea ice reveal that 2016 has been the joint second lowest year on record.

Every September sea ice in the Arctic reaches a minimum extent after retreating during the northern hemisphere summer. This September the latest figures reveal that the minimum extent is short of an absolute record, but adds to the series that the last 10 years have witnessed the lowest extent of summer sea ice in the Arctic ever recorded.

The extent of summer Arctic sea ice has decreased by over 13% per decade since satellite records began in 1979, relative to the 1981-2010 average of 6.38 million square km.

This year's figure of 4.14 million square km, released by the US National Snow and Ice Data Center (NSIDC) is the joint-second lowest on record since satellite monitoring began in 1979, virtually identical to the 4.15 million square km recorded in 2007. The lowest extent of summer Arctic sea ice, since 1979, was recorded in 2012, with a figure of 3.39 million square km.

Dr Ed Blockley leads the Met Office Polar Climate Group. Commenting on today's figures he said: "It is highly noteworthy that the 10 years with the lowest extent of Arctic sea ice have all been within the last 10 years. Despite a record low winter ice extent in March, this year's figure isn't an absolute record. But this shouldn't detract from the fact there has been a substantial decline in the extent of Arctic sea ice over the last few decades.

"The current rate of loss of Arctic summer sea ice of 13% per decade is equivalent to an annual loss greater than the size of Scotland."

Sea ice is an important component of the climate system because it regulates the transfer of heat and energy between the atmosphere and the ocean.

Ed Blockley added: "Being whiter than the sea surface, particularly so when covered by snow, sea ice reflects more of the Sun's rays back into space than does the surrounding ocean. It therefore plays a key role in regulating the amount of the Sun's energy absorbed by the Earth.

"There is actually a positive feedback system: less ice means more of the Sun's energy is absorbed which in turn further reduces the extent of ice through melting."

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